

REMARKS

Claims 1, 3-13, 15, 17, 24, 26, 36, 37, 39, 41 and 43 are pending. Claims 1, 10, 11, 15, 24, 36, 37, 39, 41 and 43 have been amended. Claims 2, 14, 16-23, 25, 27-35, 38, 40 and 42 have been cancelled.

Claim 36 stands rejected under 25 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,771,729 to Takahashi. This rejection is respectfully traversed.

Amended independent claim 36 recites, *inter alia*, a power supply apparatus comprising a “control circuit adapted to activate more than one of [a] plurality of charge pump circuits in response to a received signal on [a] data input containing information relating to an anticipated change in power demand.”

Takahashi does not disclose a power supply apparatus which is responsive to a received input signal which includes information relating to an anticipated change in power demand. For these and other reasons, the rejection of claim 36 should be withdrawn and the claim should be allowed.

Claims 1, 3-13, 15 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,193,198 to Yokouchi in view of U.S. Patent No. 6,507,237 to Hsu. This rejection is respectfully traversed.

Independent claim 1 recites, *inter alia*, a method of controlling a power supply comprising “reading a digital signal on a digital data bus, said digital signal including information relating to an anticipated change in power demand; generating a control signal” and “modifying a power output of said power supply to a load in response to said control signal, wherein said act of modifying said power output

further comprises activating more than one of [a] plurality of charge pump circuits responsive to said control signal.”

Neither Yokoushi nor Hsu discloses a method of controlling a power supply which includes “reading a digital signal including information relating to an *anticipated* change in power demand; generating a control signal” and “modifying a power output of said power supply to a load in response to said control signal.” The Office Action identifies charge pump enable signal 43 in Yokouchi as a control signal, but the signal does not include “information relating to an anticipated change in power demand” and the power output of the power supply is not modified “to a load in response to said control signal.”

Similarly, the Office Action identifies clock signal S1 in Hsu as a control signal, but again, but the signal does not include “information relating to an anticipated change in power demand” and the power output of the power supply is not modified “to a load in response to said control signal.” The Office Action does not even mention the limitations of reading a digital signal including information relating to an anticipated change in power demand, or generating a control signal based on said information.

Additionally, rejection of claims 12 and 13 under Yokouchi in view of Hsu alone is improper because the Office Action admits on page 6, ¶ 19 that “neither Yokouchi nor Hsu teaches that the memory circuit comprises a flash memory circuit and storing digital data signal as a word in flash memory.”

For at least the above reasons, Applicants respectfully request that the rejection of claim 1 and all dependent claims be withdrawn.

Independent claim 15 recites, *inter alia*, a method of controlling a power supply comprising “producing an analog signal related to a number of bits having a particular logic state in a digital signal, said analog signal being independent of an output of said power supply” and “setting an output of said power supply to a particular level in response to said analog signal, wherein said power supply comprises a plurality of subcircuits and said setting an output of a power supply comprises activating more than one of said subcircuits.”

Neither Yokoushi nor Hsu discloses “producing an analog signal related to a number of bits having a particular logic state in a digital signal, said analog signal being independent of an output of said power supply” or “setting an output of said power supply to a particular level in response to said analog signal.” The Office Action identifies charge pump enable signal 43 in Yokouchi as a control signal, but the signal is not “an analog signal related to a number of bits having a particular logic state in a digital signal” and “independent of an output of said power supply” and the output of the power supply is not set “to a particular level in response to said analog signal.”

Similarly, the Office Action identifies clock signal S1 in Hsu as a control signal, but again, but the signal is not “an analog signal related to a number of bits having a particular logic state in a digital signal” and “independent of an output of said power supply” and the output of the power supply is not set “to a particular level in response to said analog signal.”

Additionally, rejection of claim 17 under Yokouchi in view of Hsu alone is improper because the Office Action admits on page 6, ¶ 19 that “neither Yokouchi nor Hsu teaches that the memory circuit comprises a flash memory circuit and storing digital data signal as a word in flash memory.”

For at least the above reasons, Applicants respectfully request that the rejection of claim 15 and all dependent claims be withdrawn.

Claims 12, 13 and 17 stand rejected under 35. U.S.C. §103(a) as being unpatentable over Yokouchi in view of Hsu and further in view of Chevalier. This rejection is respectfully traversed.

The deficiencies of Yokouchi and Hsu have been discussed above. Chevalier also fails to show either the acts of “reading a digital signal including information relating to an *anticipated* change in power demand; generating a control signal” and “modifying a power output of said power supply to a load in response to said control signal,” or the acts of “producing an analog signal related to a number of bits having a particular logic state in a digital signal, said analog signal being independent of an output of said power supply” and “setting an output of said power supply to a particular level in response to said analog signal.” For at least the above reasons, Applicants respectfully request that the rejection of claim 12, 13 and 17 be withdrawn.

Claim 37 stands rejected under 35. U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,653,888 to Lee in view of Chevalier. This rejection is respectfully traversed.

Amended independent claim 37 recites, *inter alia*, a power supply comprising “a control circuit connected to [an] input bus, said control circuit adapted to provide a particular plurality of output signals in response to a number of bits of a predetermined logic value in an input signal received on [] input lines containing information relating to an anticipated change in power demand.”

Both Lee and Chevalier fail to show these limitations, specifically, "a control circuit adapted to provide a particular plurality of output signals in response to a number of bits of a predetermined logic value in an input signal received on [] input lines containing information relating to an anticipated change in power demand." For at least these reasons, the rejection of claim 37 should be withdrawn.

Claims 39, 41 and 43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yokouchi in view of Chevalier.

Independent claim 39 recites, *inter alia*, a power supply controller comprising "a sensing circuit adapted to activate one or more of [a] plurality of outputs in response to a corresponding pattern of data bus signals detected on [a] plurality of data bus inputs and a plurality of charge pump circuits connected to one of said plurality of outputs."

The deficiencies of Yokouchi and Chevalier have been discussed above. Neither Yokouchi nor Chevalier discloses these limitations, specifically, "a sensing circuit adapted to activate one or more of [a] plurality of outputs in response to a corresponding pattern of data bus signals detected on [a] plurality of data bus inputs and a plurality of charge pump circuits connected to one of said plurality of outputs." For at least these reasons, the rejection of claim 39 should be withdrawn.

Independent claim 41 recites, *inter alia*, a processing system comprising "a sensing circuit adapted to activate more than one of [a] plurality of outputs in response to a pattern of data bus signals detected on [a] plurality of data bus inputs and a plurality of charge pump circuits each operatively connected to a respective output."

The deficiencies of Yokouchi and Chevalier have been discussed above. Neither Yokouchi nor Chevalier discloses these limitations, specifically, "a sensing circuit adapted to activate more than one of [a] plurality of outputs in response to a pattern of data bus signals." For at least these reasons, the rejection of claim 41 should be withdrawn.

Independent claim 43 recites, *inter alia*, a microprocessor integrated circuit comprising "a sensing circuit adapted to activate or deactivate [an] output in response to a corresponding pattern of data bus signals detected on [a] plurality of data bus inputs; and a plurality of charge pump circuits responsive to said output, said output activating more than one of said plurality of charge pump circuits responsive to said sensing circuit."

The deficiencies of Yokouchi and Chevalier have been discussed above. Neither Yokouchi nor Chevalier discloses these limitations, specifically, "a sensing circuit adapted to activate or deactivate [an] output in response to a corresponding pattern of data bus signals detected on [a] plurality of data bus inputs; and a plurality of charge pump circuits responsive to said output, said output being capable of activating more than one of said plurality of charge pump circuits responsive to said sensing circuit." For at least these reasons, the rejection of claim 43 should be withdrawn.

The Office Action does not state any grounds for rejection of claims 24 or 26. The Office Action's only reference to claim 24 appears on page 4, ¶ 10, with respect to elements of Yokouchi and the only reference to claim 26 appears on page 7, ¶ 21 with respect to elements Hsu. The Office Action makes no statement that claims 24 or 26 have been rejected under any particular reference or combination of references. The

Office Action makes no showing that any reference or combination of references contains all the limitations of the claims or that there would be any motivation to combine multiple references to arrive at the claimed invention.

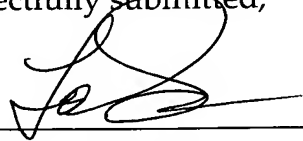
Furthermore, independent claim 24 recites, *inter alia*, a method of controlling a power supply comprising "sensing a number of bits in a particular logic state in a particular digital communication; and adapting said power supply to supply a particular level of current, said level of current being proportional to said number of bits by switchingly connecting a plurality of power supply portions to a load circuit."

None of Yokouchi, Hsu or any other cited reference discloses these limitations, specifically "adapting said power supply to supply a particular level of current, said level of current being proportional to [a] number of bits by switchingly connecting a plurality of power supply portions to a load circuit." Because the Office Action has not rejected claims 24 or 26 and further because the cited references do not contain all the limitations of the claims, Applicants respectfully submit that claims 24 and 26 be allowed.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: October 30, 2005

Respectfully submitted,

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